

A NEW GENUS FROM MISSOURI

BY KENNETH K. MACKENZIE

It is a novel experience to receive a specimen from the range covered by the Illustrated Flora and by Gray's Manual which cannot be readily referred to well known genera. Not only has Mr. E. J. Palmer succeeded in discovering such a plant in southwestern Missouri, but he has found a plant the family position of which may be open to question. I have not been able to find anything at all like the plant found by him, and therefore propose it as the type of a new genus:

Geocarpon gen. nov.

A low glabrous winter-annual branching from the base. Leaves opposite, equal or nearly so, entire, sessile and connate at base, without stipules, scarcely succulent. Flowers sessile in the axils, one at each node, alternating with the flowers above and below. Calyx free, somewhat turbinate, the lower third or half united into a tube, the segments five, erect, not carinate, unappendaged, ovate, acutish, green with minute white margin, not petaloid, 3-nerved, each lateral nerve united below cleft of calyx with lateral nerve of next sepal. Corolla absent. Stamens five, alternate with calyx lobes, inserted on tube of calyx, the filaments white, somewhat flattened, slender, barely 1 mm. long, not reaching above calyx, the anthers minute, short oblong, bilocular. Capsule ovoid, 1-celled with central placentae, 30-50 ovuled, dehiscent by three valves, the sharp tips slightly exceeding the stigmas. Style none. Stigmas three, stigmatose along inner surface, alternating with tips of capsule. Seeds minute, smoothish, estrophiolate, the slender, straight, ascending funiculi remaining attached to the five central placentae.

G. minimum sp. nov. Branches 1-4 cm. long; leaves of branches linear-elliptic to ovate, cucullate, 3-4 mm. long, 1-2 mm. wide, the basal linear, flat, 4-6 mm. long; calyx 4-5 mm. long, slightly exceeding capsule.

Type collected by E. J. Palmer (No. 3921) in sandy barrens

near Alba, Jasper County, Missouri, on April 20, 1913, and sent to me by Mr. B. F. Bush for identification.

This plant is probably to be referred to the family Aizoaceae, or as treated in the Synoptical Flora 1: 256 the Ficoideae, and to the tribe Aizoideae of that family. In many respects it seems to come closer to the genus *Cypselea* than to any other North American genus. It differs markedly in the absence of stipules and style and in the capsule not being circumscissile. The other genera of the tribe in question, found in this country, are succulent plants with circumscissile capsules and cornute calyx-lobes.

The tribe Mollugineae of the same family characterized by a calyx divided nearly or quite to the base, and represented in the United States by two genera having 3-celled ovaries, is less closely related to our plant. Nor can our plant be considered an apetalous representative of the Alsinaceae, as the sepals in that family are distinct or very nearly so. It seems in fact to represent a well-characterized genus.

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SHORTER NOTES

BERGSON AND THE BIOMETRICAL METHOD. The controversy over the definiteness (and fixity) of morphological types is no longer of supreme interest to the present-day taxonomists. But the exact status of the biometrical method is still under discussion; in that connection, at least, it may be interesting to note two references from a recent book on philosophy, Bergson's *Creative Evolution*. They at once support and illumine the biometrical method. The first (P. 13) states that "vital properties are never entirely realized, though always on the way to become so; they are not so much states as tendencies." Because of this we have the second statement (P. 116), "the group must not be defined by the possession of certain characters but by its tendency to emphasize them."

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